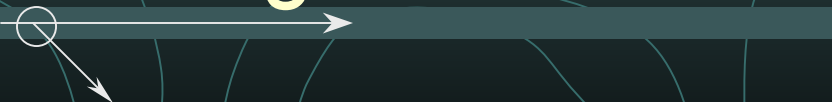




Updating Nevada's Solid Waste Management Plan



Nevada Division of Environmental
Protection—April 2004

Introduction

- Objectives in Updating the State Plan
 - Assess current conditions
 - Identify issues
 - Recommend policy, legislative or regulatory changes to address key issues
 - Comply with NRS 444.570 that mandates a State solid waste plan and periodic updates

Background

- Last plan adopted by the State Environmental Commission in July 1992, primarily focused on:
 - Implementation of RCRA Subtitle D landfill regulations adopted by EPA in 1991; and
 - Implementation of recycling requirements passed by the Legislature in 1991.

What's changed in 12 years?

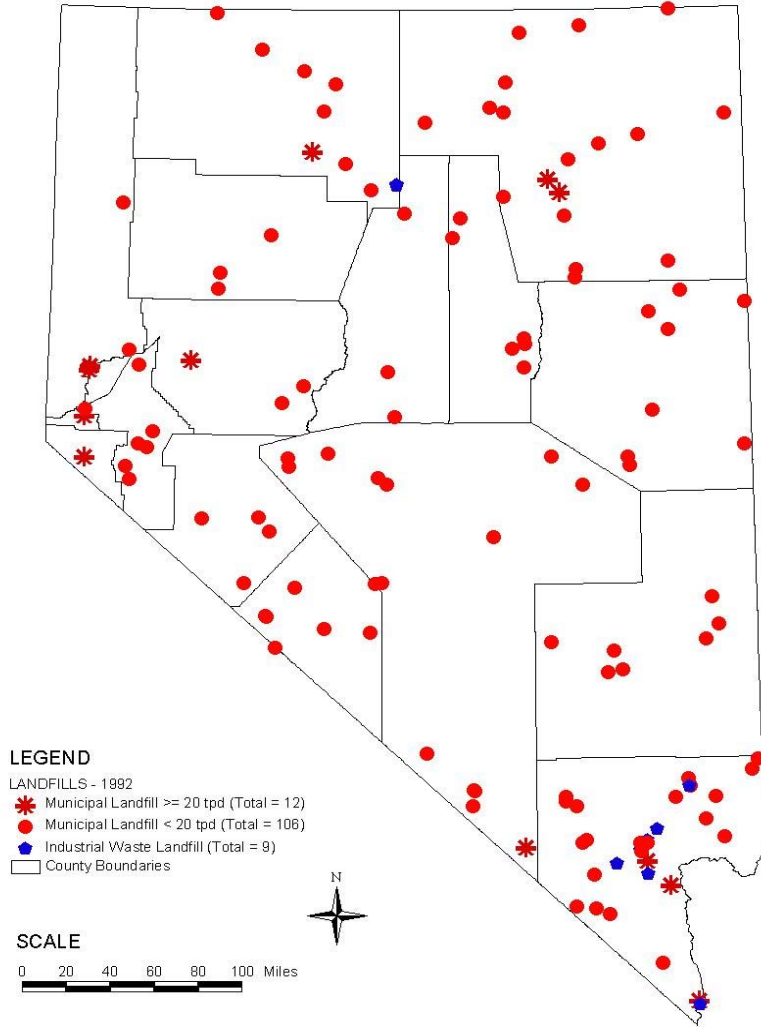
- Open dumps have closed in favor of regional disposal sites and a network of collection and transfer facilities.
- NV imports 9 times more out-of-state solid waste now than in 1993.
- Municipalities over 40,000 population required to adopt recycling programs.
- The percentage of waste diverted through recycling has remained flat statewide, though has varied locally.

Recycling & household hazardous waste program requirements for municipalities

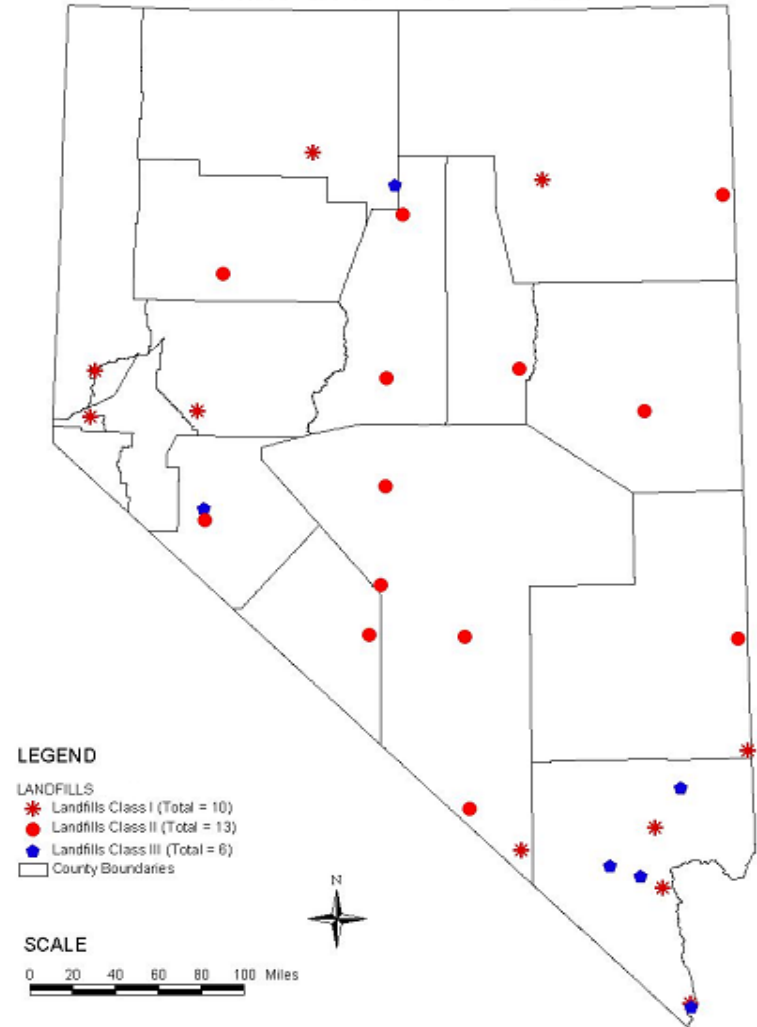
- Population > 100,000: must provide HHW drop-offs & curbside collection of recyclables to residential and public buildings.
 - Clark County & Washoe County
- Population > 40,000: must provide HHW and recyclable drop-off centers.
 - Carson City, Douglas County, Elko County
- Municipal programs must submit reports of quantities recycled, periodically evaluate program effectiveness and make appropriate changes.

Solid waste trends...

LANDFILLS - 1992



LANDFILLS - 2004

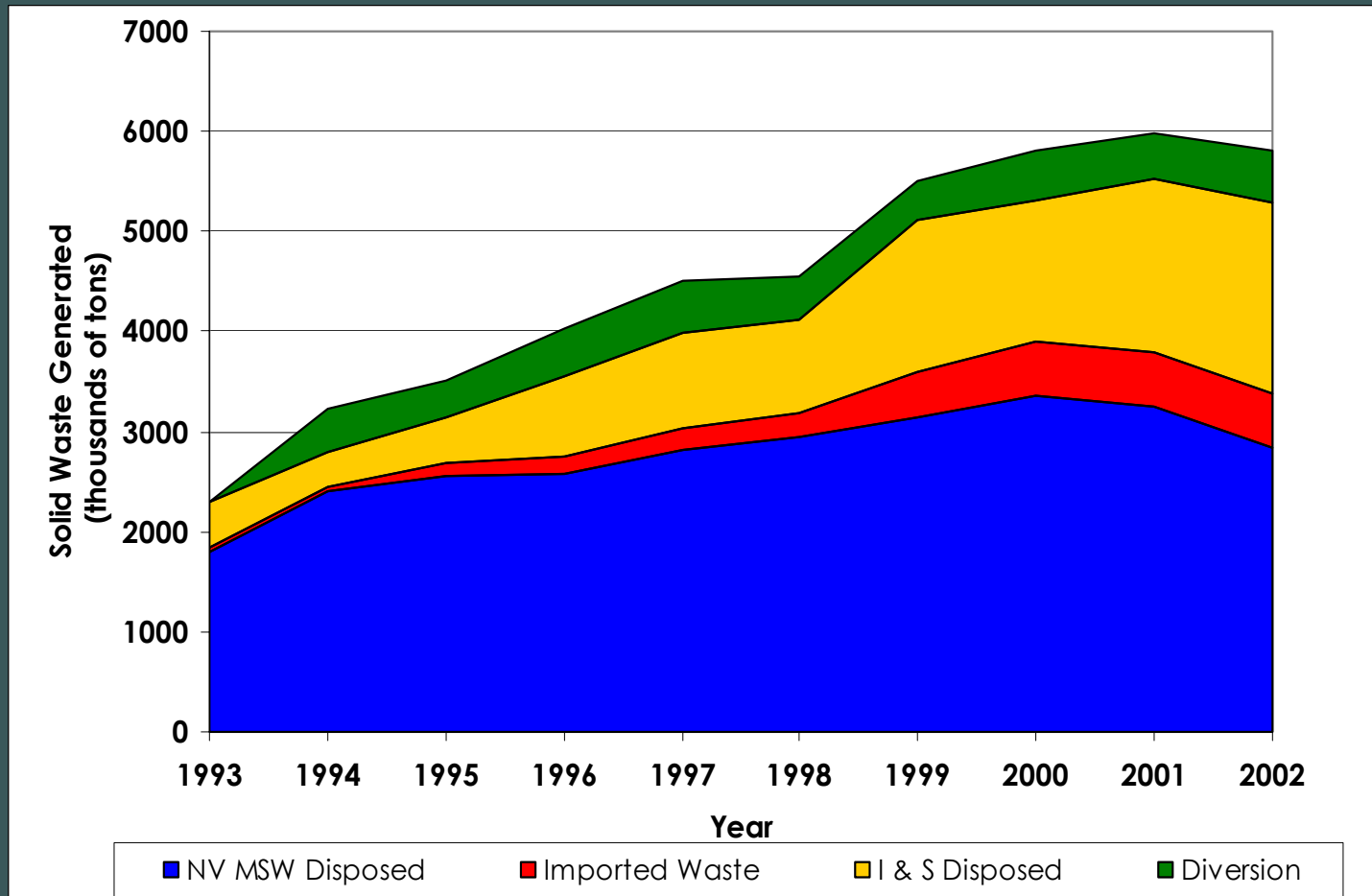


Solid waste disposal capacity... not an issue for Nevada as a whole

● Estimated years remaining life for large landfills

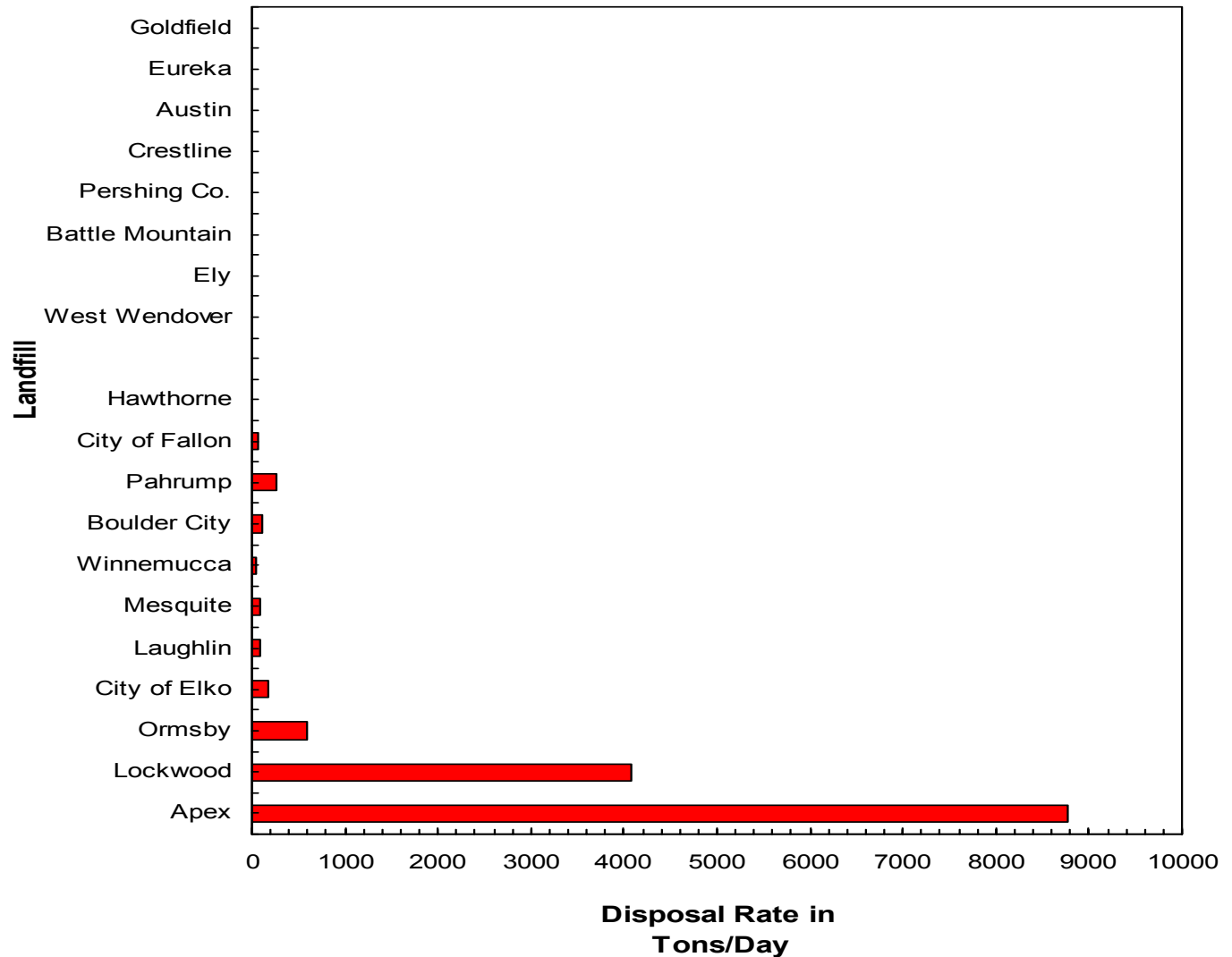
- Apex – 44
- Boulder City – 33
- Carson City – 13
- Elko – 19
- Laughlin – 16
- Lockwood – 32
- Pahrump - 5

Solid waste trends...waste generation and management



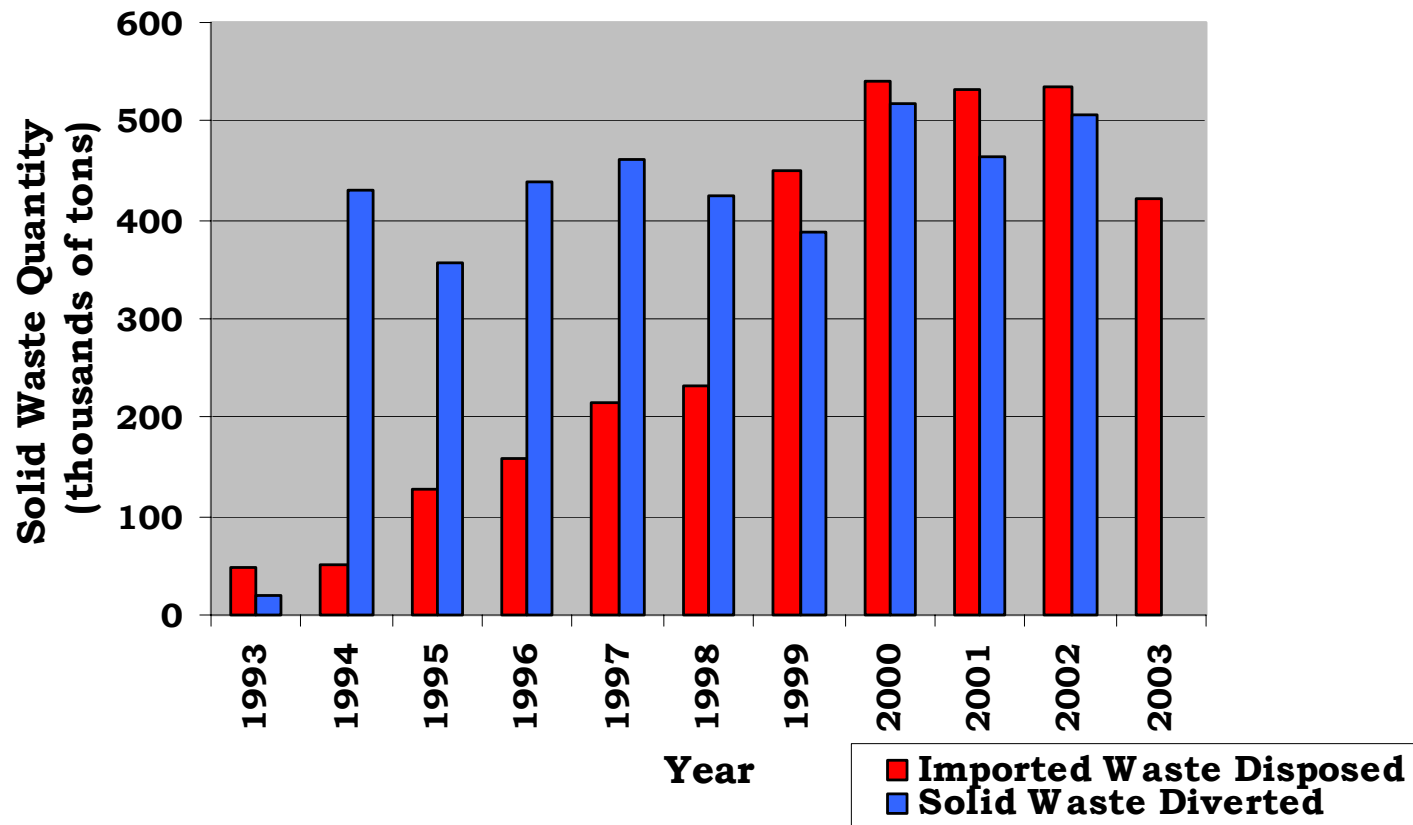
Solid waste trends...

Rate of Waste Disposal at Permitted Landfills 2003



Solid waste trends...comparison of imported vs. recycled amounts

Nevada Solid Waste Trends 1993-2003



Solid waste trends...NV positioned to become major waste importing state

- No disposal fees
- No permit fees
- Land costs low
- Construction & operation costs low – many landfills permitted without liners & leachate collection

Solid waste trends...more on importation

- Plans for new landfills/expansions would increase capacity for out-of-state waste
 - Crestline, Lincoln Co. - permitted for 4,000 tons/day, composite liner
 - Rawhide Mine pit, Mineral County, very large landfill proposed
 - Humboldt County – new site planned with liner waiver request
 - City of Elko – landfill expansion planned for waste importation

Solid waste trends...more on importation

● Pros

- Revenue source
- Economic development
- Improve municipal solid waste systems

● Cons

- Existing facilities unlined
- Nevada not a wasteland
- Difficult to control
- More truck traffic
- Blowing litter from poorly contained loads

Solid waste issues...special wastes

- Electronic waste – regulated HW
 - TVs, computer monitors, possibly cell phones
- Medical/infectious waste
 - Nevada's medical waste regs use outdated definition
 - Regs do not specifically address high-hazard wastes such as sharps or cultures & stocks
 - Lacking household sharps disposal programs
 - Medical waste being imported for disposal
- Recommendation: SWMAs coordinate plans and regulations for proper management of special wastes.

Solid waste issues...open burning

Persistent bioaccumulative toxins (PBT)

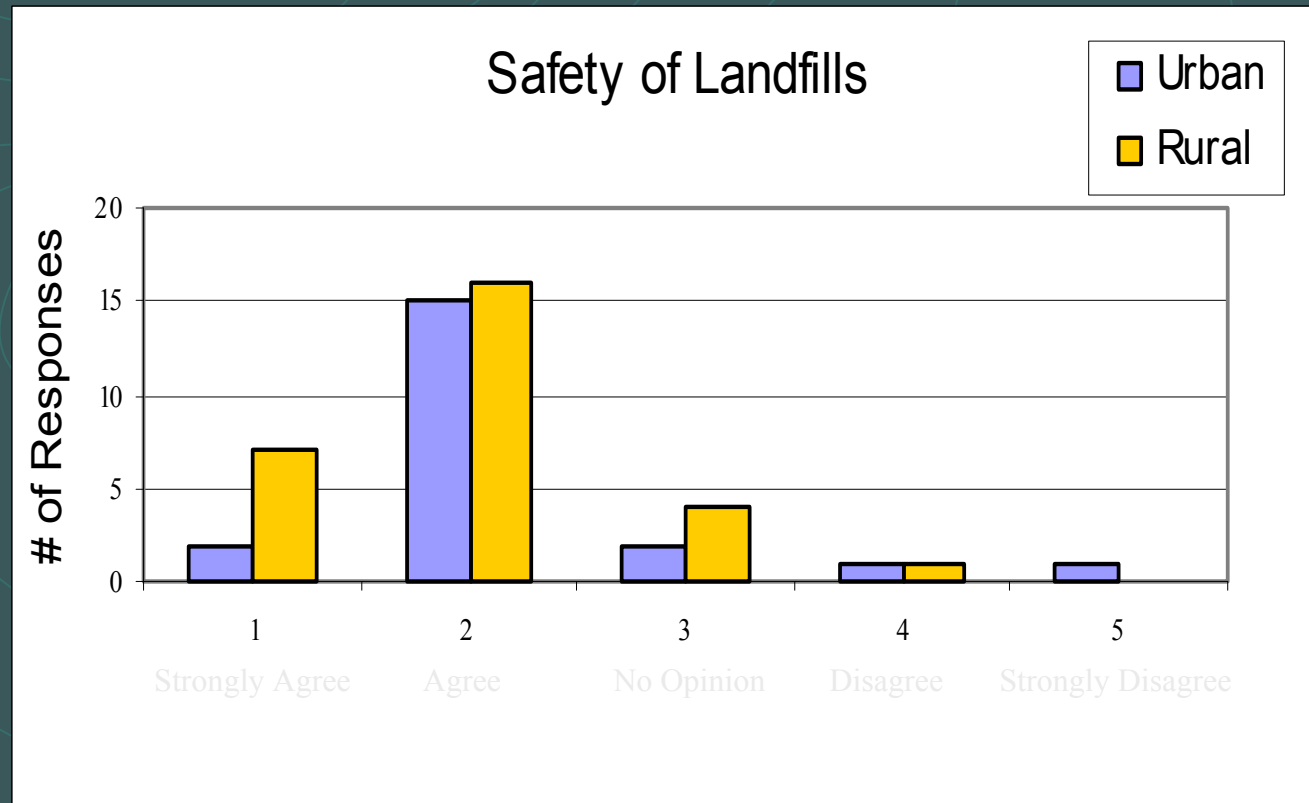
- Open burning is largest source of dioxin emissions in US today – plastics, cardboard, paper.
- PBTs from open burning fall out on crop land, are absorbed by plants and are concentrated higher in the food chain, i.e. humans. Transported regionally.
- Backyard burning of household waste common in some rural areas.
- Some agricultural facilities burn cardboard & plastic containers, plastic film, baling twine.

Solid Waste Issues...

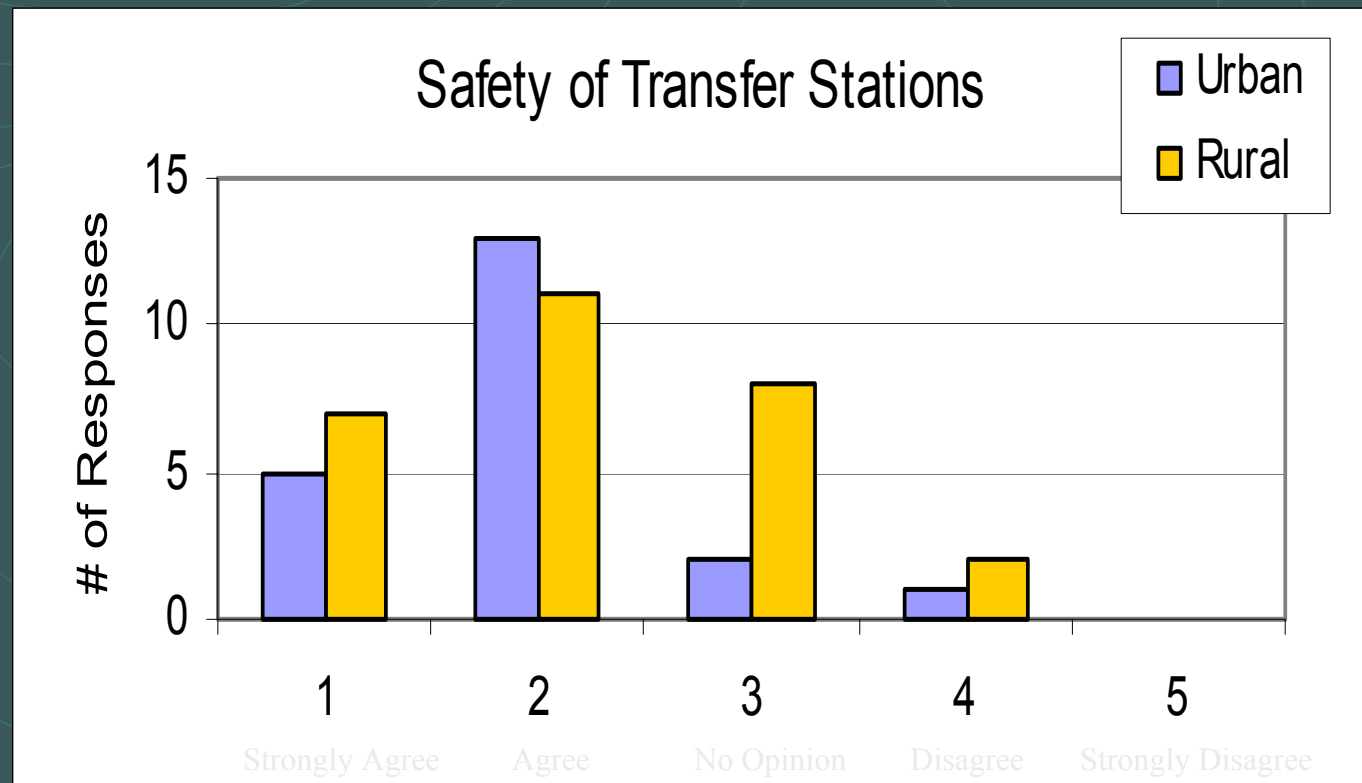
Results of a Stakeholder Survey - 2002

- Mailed to 168 stakeholders – solid waste industry, local government, recyclers, environmental organizations
- 49 returned (29%)
- 21 urban respondents
- 28 rural, i.e. from communities < 50,000 population
- What solid waste issues are of concern?

Question 1: Nevada's landfills are protective of public health and the environment.

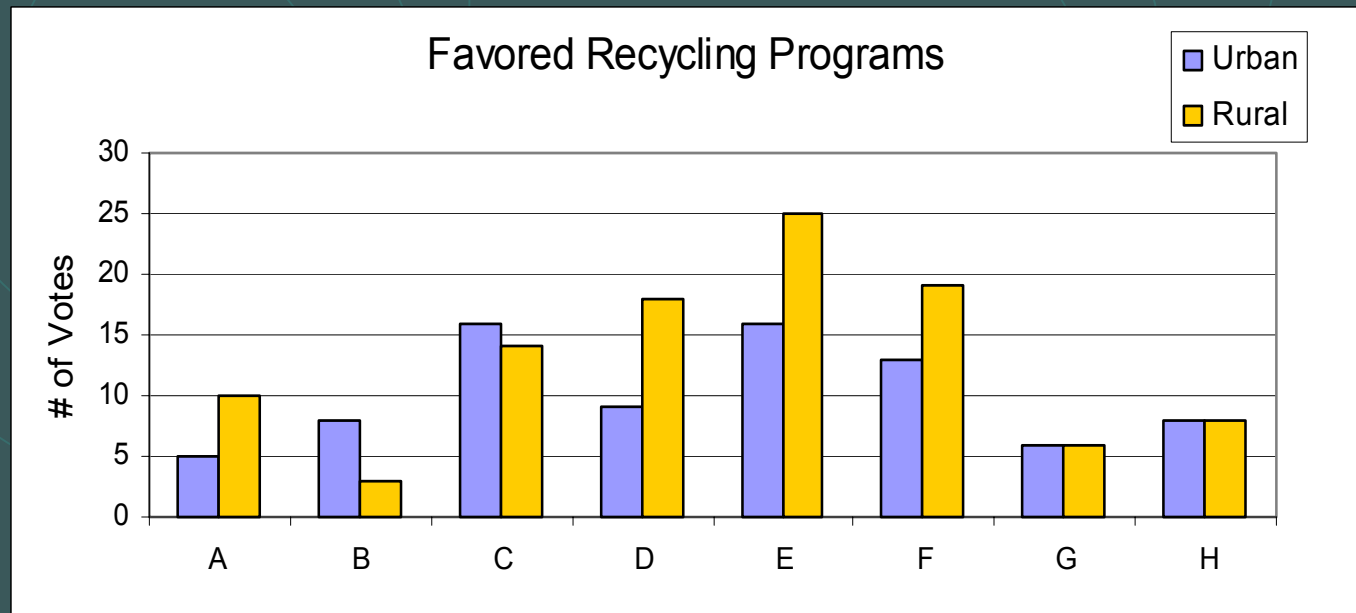


Question 2: Nevada's system of public waste storage bins and transfer stations is protective of public health and the environment.

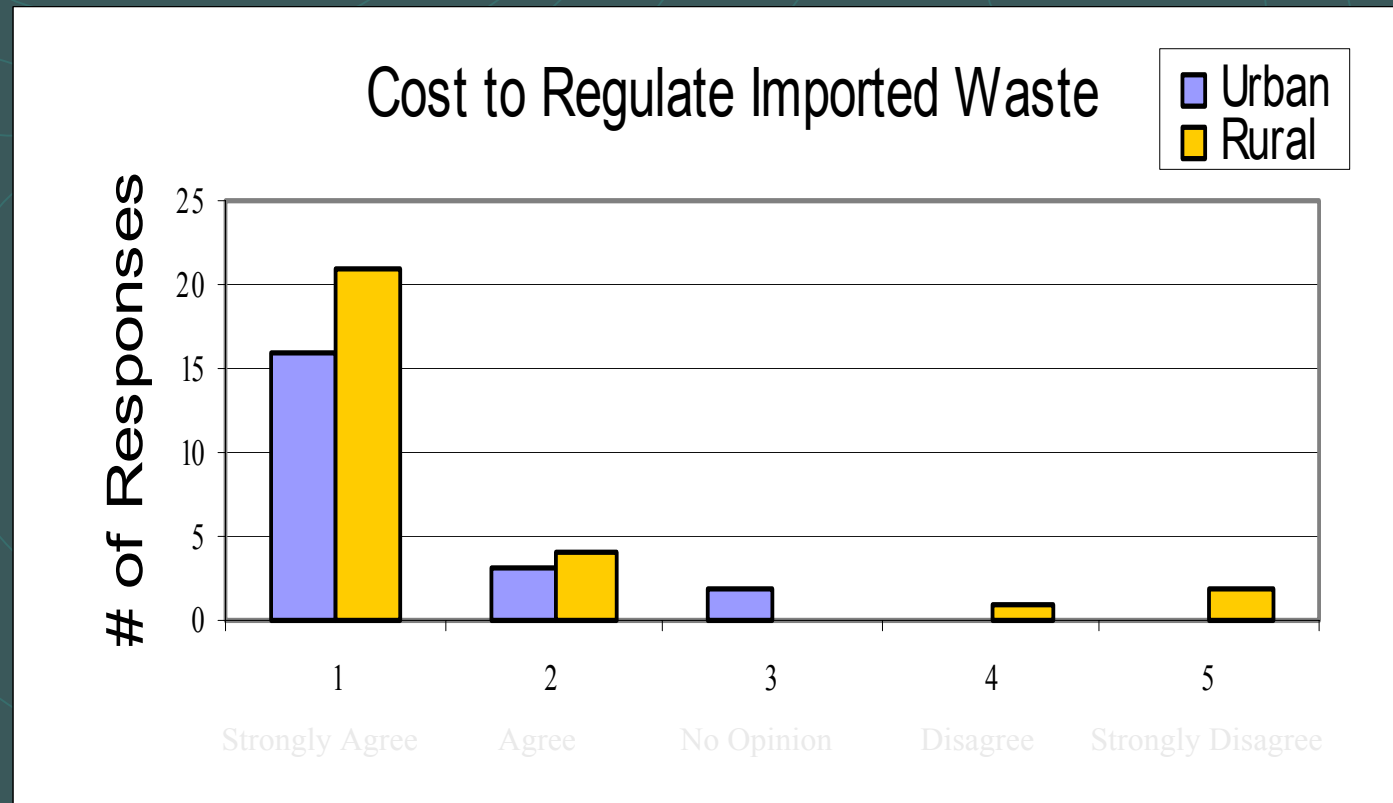


Question #3: The best way(s) to meet the 25% State recycling goal is through:

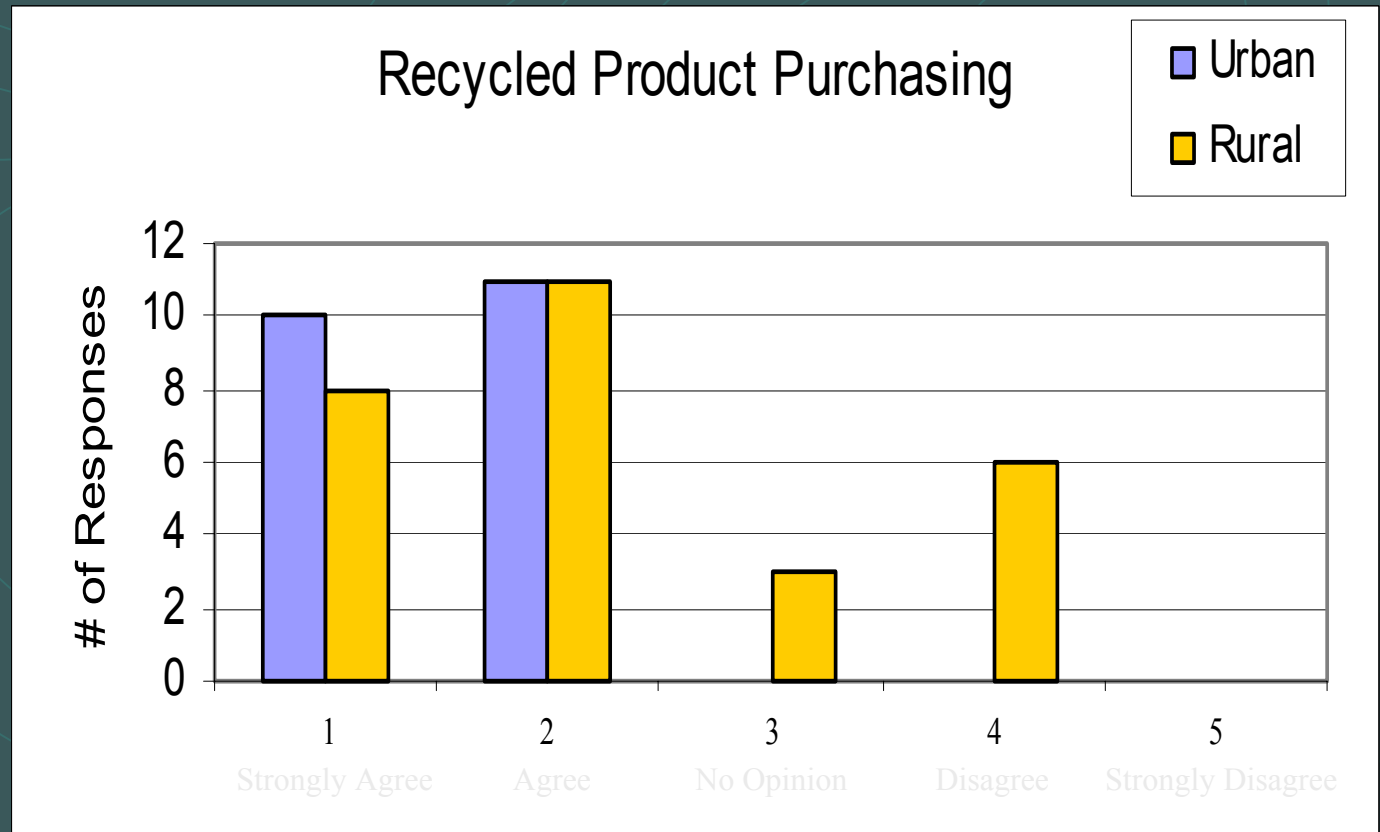
- A Bottle bill (beverage container deposit law)
- B Landfill bans of yard wastes, tires, or other recyclable materials
- C More public education
- D Greater availability of recycling services
- E Development of recycling markets
- F Incentive programs
- G Major population centers subject to an enforceable mandate rather than a recycling "goal"
- H Volume-based pricing (the more you dispose, the more you pay)



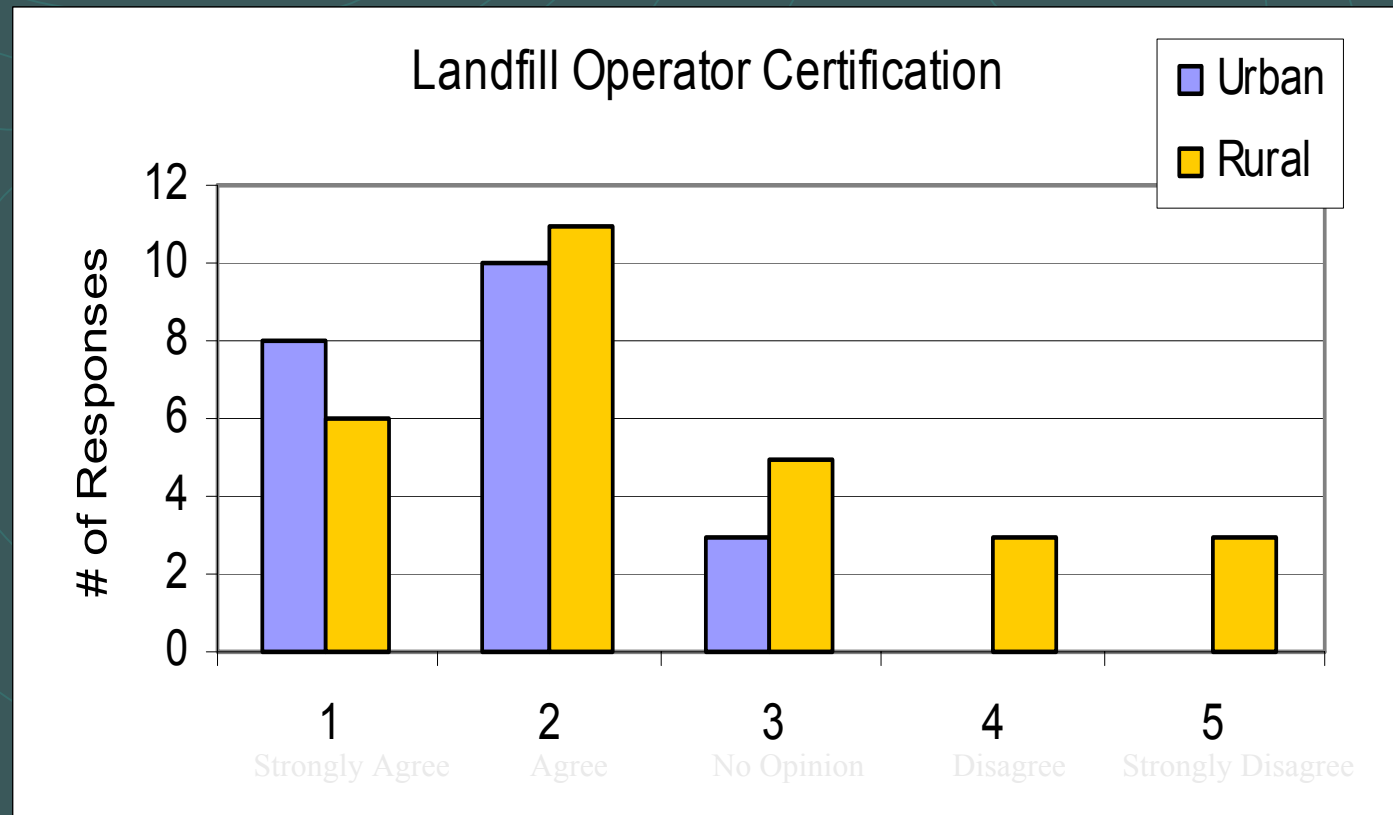
Question #4: The public cost to regulate solid waste imported from other states for disposal in Nevada should be paid by the waste generators.



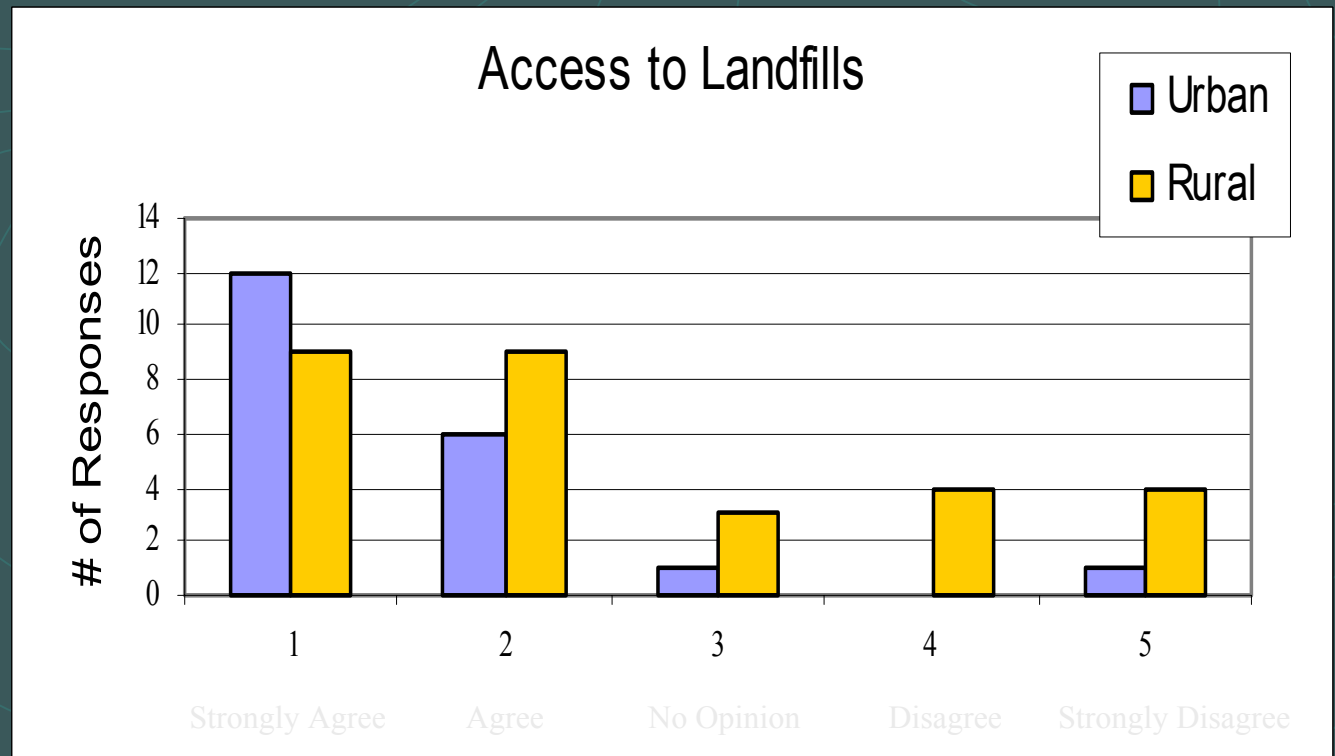
Question 5: State and local government agencies should promote development of recycling markets by purchasing products made with recycled materials.



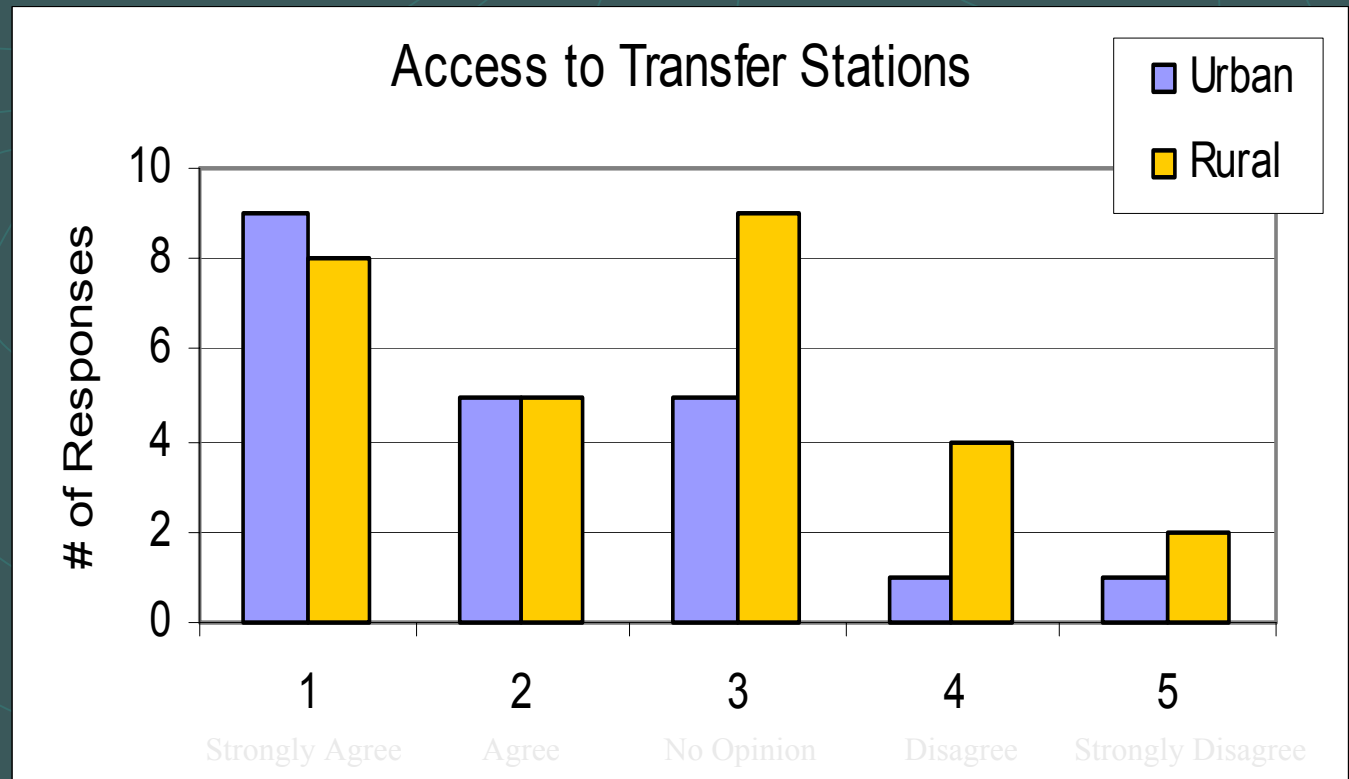
Question 7: A certification requirement for landfill managers is needed in Nevada to ensure that these facilities are properly operated.



Question #8: My community has convenient access to landfills at an affordable cost.



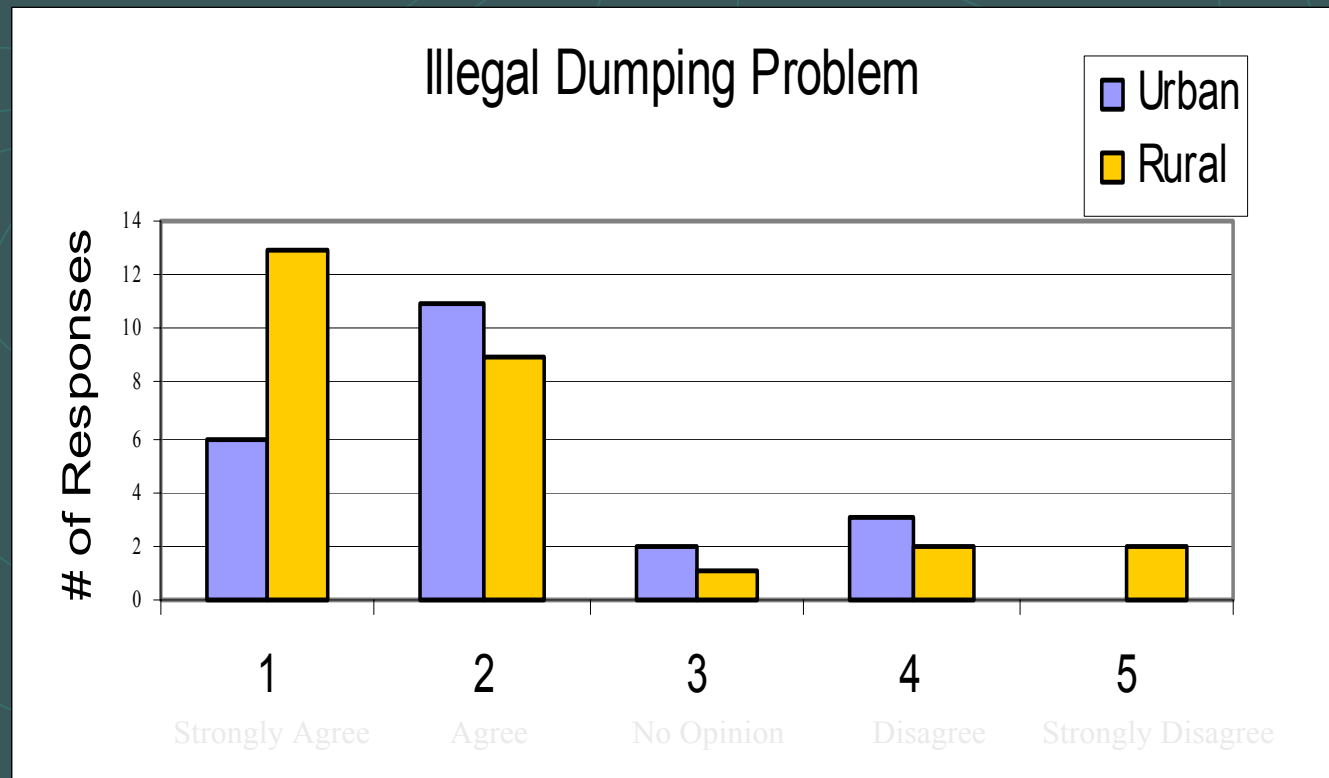
Question 9: My community has convenient access to public waste storage bins or transfer stations at an affordable cost.



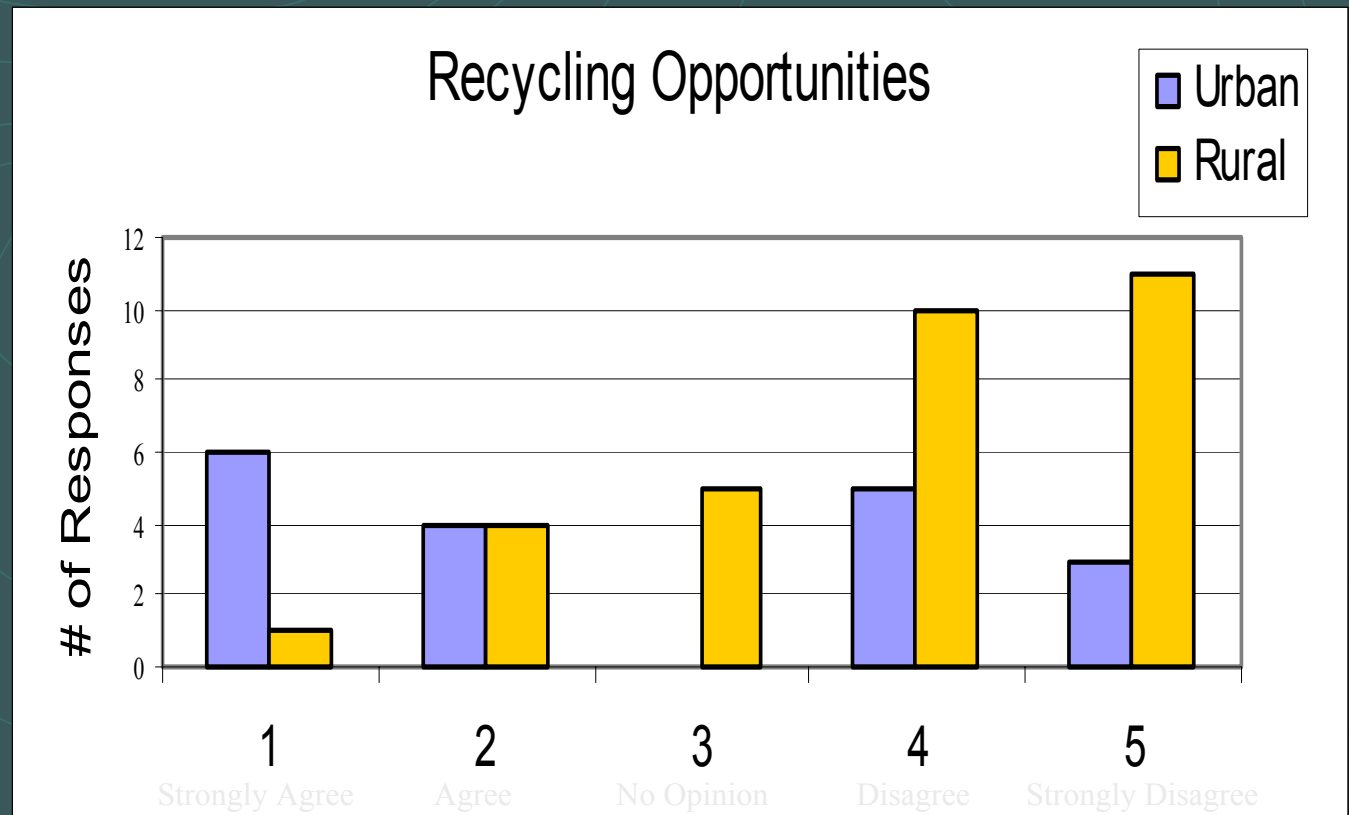
Question #10: Solid waste collection services are available in my community at an affordable cost.



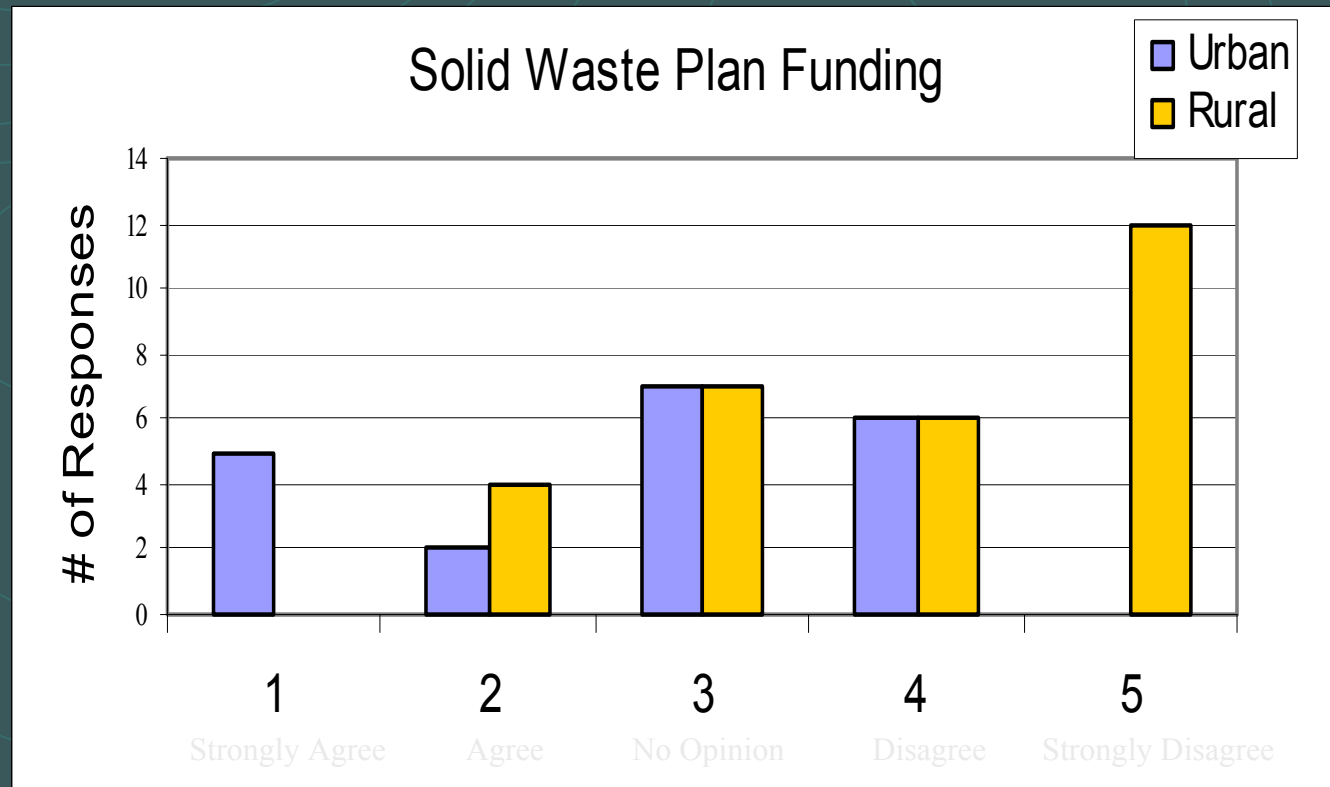
Question #11: My community has a problem with illegal solid waste disposal or desert dumping.



Question #12: There are adequate services for recycling available in my community.



Question #13: Sufficient public funds exist for planning and implementing solid waste management systems in my community.



Summary of survey results:

- Landfills and collection systems are perceived as safe and accessible. Costs perceived as high in some rural areas, even though funding is inadequate.
- Landfill manager/operator certification program is desirable.
- Illegal dumping is a persistent problem.

Summary of survey results, continued...

- Recycling services are perceived as inadequate in rural and some urban areas.
- Government agencies should purchase products made from recycled materials.
- Public education, economic incentives, and market development are suggested to improve recycling.

More on recycling...

Recycling forum held in LV, March 2001:

- Similar call for expanded recycling services, public education, promotion.
- Concern from private recyclers that waste hauling franchises inhibit recycling.
- Concern from franchisee over sham recycling and lack of accountability in recycling reporting system.

Recommendations...Recycling

- Expand local public education and information programs.
 - Legislation for approved programs to provide info to new businesses.
 - Improve reporting system for recycling - publish rate calculation procedure and issue draft recycling reports for comment.
- Increase number of drop-off sites - enforce requirements for approved recycling programs.

Recycling recommendations, cont...

- Implement existing requirements to report on approved recycling programs:
 - Notices twice yearly to property owners of available recycling opportunities
 - Municipalities to conduct review of recycling program every 3 years and make appropriate revisions
- Strengthen reporting requirements for approved programs:
 - Make program review due every 2 years and submittal of report to NDEP.

Recommendations...waste generator responsibility

- Statutory revision to address persistent violation or environmental threat at a disposal site.
 - If the site operator:
 - is in violation of solid waste regulations, and
 - is unable or unwilling to correct the violation or threat.
 - Waste generators may be:
 - Ordered to stop delivering waste to the disposal site, and
 - Held responsible for cleanup costs.

Recommendations..rural solid waste management

- Provide means to support rural solid waste infrastructure and operating needs.
 - Establish authority for a grants program that could fund local solid waste system improvements and critical needs;
 - Subsidize landfill operator training and consider an operator certification program;
 - Consider a subsidy for collection of recyclables in rural areas that wish to participate;
 - Provide local public information/education to promote proper waste management & discourage open burning, desert dumping & litter. Advertise citizen reward for reporting illegal dumping.

Recommendations...importation

● Problem:

- Nevada's tire fee for solid waste management regulation was not intended to cover costs to regulate imported waste.
- Added revenue is needed for regulatory oversight.

● Recommendation:

- Provide authority to establish permit fees for new landfills or expansions greater than 500 ton/day outside of Washoe and Clark Counties.

More Recommendations...importation

● Problem:

- While small, unlined landfills serving Nevada's rural communities are considered safe, the same design with a much larger waste mass poses greater risk to Nevada's groundwater.

● Recommendation:

- Require engineered liners for new landfills or expansions greater than 500 ton/day.

State solid waste plan...next steps

● May – June 2004

- Prepare draft plan based on consideration of written comments and discussion at workshops

● July 2004

- Post draft on website: www.ndep.nv.gov

● August 2004 – public comment period

- Accept written and email comments on draft plan

● Sept to Dec 2004 – prepare and post final draft

- Petition State Environmental Commission to adopt plan
- 30-day public comment period on final draft

Conclusion

- Keep state and municipal solid waste plans up to date!
- Check NDEP website for updates on Nevada SWMP development: www.ndep.nv.gov
- Submit written comments on State SWMP to:
lgould@ndep.nv.gov

or: Les Gould, Supervisor, Solid Waste Branch
Bureau of Waste Management
Nevada Division of Environmental Protection
333 W. Nye Lane, Rm 138
Carson City, NV 89706-0851

or call: Les Gould.....775-687-9468
Dave Simpson.....775-687-9469